

**Commonwealth of Kentucky  
Natural Resources and Environmental Protection Cabinet  
Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane  
Frankfort, Kentucky 40601  
(502) 573-3382**

**Title V  
AIR QUALITY PERMIT  
Issued under 401 KAR 52:020**

**Permittee Name:** Logan Aluminum, Inc.  
**Mailing Address:** P.O. Box 3000, U.S. Highway 431 North  
Russellville, KY 42276

**Source Name:** Same as above.  
**Mailing Address:** Same as above.  
**Source Location:** Same as above.

**Permit Number:** V-03-017  
**Log Number:** 55244  
**Review Type:** Title V  
**Source ID #:** 21-141-00038

**Regional Office:** Bowling Green Regional Office  
1508 Westen Avenue  
Bowling Green, KY 42104-3356  
(270) 746-7475  
**County:** Logan

**Application**  
**Complete Date:** December 15, 2002  
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**John S. Lyons, Director  
Division for Air Quality**

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Rev #	Permit type	Log #	Complete Date	Issuance Date	Summary of Action
----	Initial Issuance		--	4/14/98	--
1	Title V	E919	--	8/24/99	--
--	Title V	55244	--	6/17/03	Renewal/Construction

**SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

**SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****Emissions Unit: 22 (1001-1) Flux Box Baghouse****Description:**

- (i) Three flux boxes serve three hold Furnaces in Direct Chill line 1 (DC1), Direct Chill line 2 (DC2) and Direct Chill line 3 (DC3). All the flux boxes exhaust to a baghouse.
- (ii) These flux Boxes (in-line fluxers) process only clean charge and perform limited reactive fluxing with control equipment.
- (iii) Construction commenced: DC1 and DC2 flux boxes were installed on June 15, 1981.  
DC3 flux box was installed on November 26, 1991.  
Flux box baghouse was installed on March 24, 2003

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production.

**1. Operating Limitations:**

- a. Total aluminum outputs for the DC1, DC2, and DC3 Flux Boxes shall not exceed 332,500 lbs/hr and 900,000 tons/yr.  
Compliance with the monthly aluminum output limit shall be monitored each month by comparing the allowable hourly output rate to the total aluminum output each month divided by the hours of operation each month. Compliance with the yearly aluminum output limit shall be determined by summing the monthly aluminum output on a 12-month rolling average.
- b. Total chlorine fluxing gas usage for the DC1, DC2, and DC3 Flux Boxes shall not exceed 23.8 lbs/hr.  
Compliance with the chlorine fluxing gas limit shall be monitored each month by comparing the allowable hourly usage rate to the total chlorine usage each month divided by the hours of operation each month.
- c. The emissions from the Induction Furnace shall exhaust through the flux box baghouse until the new emission point [emission point 55(1111-1)] has been established.

**Operating Requirements:**

- a. Emission capture and collection system:
  - Design and install in accordance with industrial Ventilation: A hand-book of Recommended Practice; operate in accordance with Operation, maintenance, and monitoring plan (OM&M plan).
- b. Aluminum output:
  - Maintain a log that records the weight of aluminum outputs. Operate in accordance with OM&M plan.
- c. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. Bag leak detector:
  - Initiate corrective action with 1-hr alarm and complete in accordance with the OM&M plan; operate such that alarm does not sound more than 5% of operating time in 6-month period.
- e. Lime injection rate:
  - Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection system; maintain feeder setting at level established during the performance test for continuous injection systems.
- f. Reactive flux injection rate:
  - Maintain reactive flux injection rate at or below rate used during the performance test for each operating cycle or time period used in the performance test.

### 2. Emission Limitations:

- a. Visible emissions from the Flux Boxes Baghouse stack shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate Matter emissions from the Flux Box Baghouse shall not exceed 6.0 lbs/hr and 26.28 tons/yr.
- c. Particulate Matter emissions from flux boxes shall not exceed 0.01 lbs/ton of feed.
- d. Hydrochloric Acid (HCl) emissions from flux boxes shall not exceed 0.04 lbs/ton of feed.
- e. If the individual limits in (c) and (d) is not met, Logan Aluminum shall meet the SAPU limit.
- f. See Group Requirements on page 87.

### Compliance Demonstration:

- a. Particulate emission rate (lbs/hour) = [Monthly production rate x Emission factor listed in Kentucky EIS/ (Hours of operation per month)] x [100 - baghouse control efficiency]  
 Monthly production rate = (DC1 charge rate + DC2 charge rate + DC3 charge rate), because the baghouse serves all three emission units.  
 The emission factor is the same for all the emission points, because the stack test was conducted on the baghouse exhaust.
- b. For filter boxes:
  - (i) Overall Particulate Matter emission limits for the secondary aluminum processing unit [kg/mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{PM} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{PM}$  = The Particulate Matter emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (ii) Overall HCl emission limit for the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{HCl} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{HCl}$  = The HCl emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

### 3. Testing Requirements:

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.

Logan Aluminum shall conduct a performance test once per lifetime of this permit to measure emissions of HCl and PM at the outlet of the control device (baghouse). The results of the performance tests are used to establish emission rates in lbs/ton of feed/charge for PM and HCl. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation below:

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n T_i}$$

Where,  $E_{day}$  = The daily PM or HCl emission rate for the secondary aluminum processing unit for the 24-hour period.

$T_i$  = The total amount of feed, or aluminum produced, for emission unit I for the 24-hour period (tons).

$ER_i$  = The measured emission rate for emission unit i as determined in the performance test (lb/ton of feed/charge)

n = The number of emission units in the secondary aluminum processing unit.

See Section G – General Conditions, subsection (d)(5)

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the following:
  - Monthly aluminum outputs from the DC1, DC2, and DC3 Flux Boxes;
  - Visible emissions on a monthly basis using EPA Reference Method 9. Maintain records for two years.
- b. Emission capture and collection:
  - Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIP standards.
- c. Aluminum Output:
  - Record weight of aluminum outputs using weight measurements device or other procedure with accuracy of  $\pm 1\%$ ; calibrate according to manufacturers specifications, or at least once every 6 months.
- d. Labeling:
  - Check monthly to confirm that the diagrams in the computer database are readily available.
- e. Bag leak detector:
  - Install and operate in accordance with "Fabric Filter Bag Leak Detection Guidance"; record voltage output from the bag leak detector.
- f. Reactive flux injection rate:
  - Weight measurements device with accuracy of  $\pm 1\%$ ; calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test. or use the Alternative flux injection rate determination procedure in 40 CFR Part 63 Subpart RRR section 63.1510(j)(5).
- g. Lime injection rate:
  - For continuous injection systems, the alarm system (Triboelectric flow indicator) that notifies if the lime is not flowing shall be in good operating condition at all times. Inspect the lime injection system once per month to ensure proper operation; record results of each visual inspection.

**5. Specific Record keeping Requirements:**

- Retain records of the following:
- Monthly aluminum output from the Flux Boxes.
  - Chlorine usage.
  - Operating hours.
  - Pollutant emissions.
  - Records specified in the Specific Monitoring Requirements.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum must submit the results of any performance test conducted, including one complete report documenting test methods and procedures, process operation, and monitoring parameters ranges or values for each test used for a particular type or emission point tested.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements semi-annually.

7. **Specific Control Equipment Conditions:**

The Flux Box Baghouse shall be properly maintained, kept in good operating condition, and used in conjunction with the associated processes (DC1, DC2, and DC3 Flux Boxes) in accordance with the manufacturer's specifications.

Maintain on site daily log of the pressure drop across the baghouse, and ensure it remains in the proper operating range.

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Unit: 01 (1002-1) Aluminum Skimming House****Description:**

- (i) The aluminum skimming house receives aluminum skimmings from the direct cast process and is equipped with a baghouse.
- (ii) Construction commenced:  
The Aluminum skimming house and the baghouse were constructed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

**1. Operating Limitations:**

Total aluminum skimmings processed through the Skimming House shall not exceed 5,708 lbs/hr and 25,000 tons/yr.

Compliance with the hourly aluminum skimmings throughput limit shall be monitored each month by comparing the allowable hourly process rate to the total skimmings processed each month divided by the hours of operation each month.

**2. Emission Limitations:**

a. Visible emissions from the Skimming House Baghouse shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].

b. Particulate emissions from the Skimming House Baghouse shall not exceed 6.0 lbs/hr and 26.28 tons/yr.

Particulate emission rate in (lbs/hour) = [ Monthly production rate x Emission factor listed in Kentucky EIS/ (Hours of operation per month)] x [ 100 - baghouse control efficiency]

c. See group requirements on page 87.

**3. Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**4. Specific Monitoring Requirements:**

Logan Aluminum shall monitor the annual skimmings processed through the Skimming House as a rolling 12-month total.

Logan Aluminum shall monitor visible emissions on a weekly basis using EPA Reference Method 9.

**5. Specific Record keeping Requirements:**

Retain records of the following:

Aluminum skimmings processed through the Skimming House;

Operating hours;

Pollutant emissions.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:**

The Skimming House Baghouse shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (Skimming House), in accordance with the manufacturer's specifications.

Maintain on site daily log of the pressure drop across the baghouse, and ensure it remains in the proper operating range.

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: (45) 1004-1          Castor Oil Tank**

**Description:**

- (i) A tank to store Castor oil.
- (ii) Construction commenced:  
The tank was installed on June 1, 1988.

**APPLICABLE REGULATIONS:**

401 KAR 59.485, is governed by 40 CFR 60, Subpart Kb, Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction or modification commenced after July 23, 1984.

- 1. **Operating Limitations:** NA
- 2. **Emission Limitations:** NA
- 3. **Testing Requirements:** NA
- 4. **Specific Monitoring Requirements:**  
No specific monitoring is required by regulation.
- 5. **Specific Record keeping Requirements:**  
Retain records showing the dimensions and capacity of the castor oil tank for the life of the tank [40 CFR 60.116b(b)].
- 6. **Specific Reporting Requirements:**  
Logan Aluminum shall report tanks dimension and capacity changes to the Division.
- 7. **Specific Control Equipment Conditions:** NA
- 8. **State-Origin Requirements:** NA
- 9. **Alternate Operating Scenarios:** NA
- 10. **Compliance Schedule:** NA
- 11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Units: 02 (1005-1A&B) DC1 Preheater and Melt Furnace (East)****Description:**

- (i) The melt furnace processes aluminum pigs, sows, alloys and scrap (clean charge and no reactive flux).
- (ii) This melt furnace is a Group 2 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iii) Construction commenced:  
The Preheater and the Melt furnace were installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production

**1. Operating Limitations:**

- a. Total aluminum charged to the DC1 Melt Furnace shall not exceed 60,000 lbs/hr and 250,530 tons/yr. Compliance with the aluminum charge rate limit shall be monitored each month by comparing the allowable hourly charge rate to the total aluminum charged each month divided by the hours of operation each month. Compliance with the yearly aluminum charge limit shall be determined by summing the monthly aluminum charge on a 12-month rolling average.
- b. Total natural gas usage for the DC1 Melt Furnace shall not exceed 503.31 MMCF/yr. Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. No coated scrap (dirty scrap) shall be charged to the DC1 Melt furnace.
- d. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total. To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12-month period.

**Operating Requirements:**

- a. Charge/feed weight or Production weight:
  - Operate a device that records the weight of each charge. Operate in accordance with operation, maintenance, and monitoring plan.
- b. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.
- c. Charge and flux material:
  - Use only clean charge. Use no reactive flux.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

2. **Emission Limitations:**

- a. Visible emissions from the DC1 Preheater and Melt Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from the DC1 Preheater and Melt Furnace shall not exceed 6.0 lbs/hr and 25.053 tons/yr.  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
[The emission factor was obtained from a stack test].
- c. See group requirements on page 87.

3. **Testing Requirements:**

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.

4. **Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the following:
  - Monthly aluminum charged to the DC1 Melt Furnace.
  - Natural gas usage.
  - Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.
- b. Charge and flux materials:
  - Record charge and flux material; certify every 6 months for clean charge and no reactive flux.

5. **Specific Record keeping Requirements:**

Retain records of the following for the DC1 Preheater and Melt Furnace:

- Aluminum charged.
- Natural gas usage.
- Percent coated scrap per charge
- Operating hours
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

6. **Specific Reporting Requirements:**

- a. Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.
- b. Submit semi-annual certification to Bowling Green Regional office that only clean charge and no reactive flux was used in the furnace.
- c. Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions Unit: 04 (1005-2) DC1 Hold Furnace (East)****Description:**

- (i) The holding furnace holds molten aluminum.
- (ii) Hold furnace is to flow metal into flux boxes (clean charge and limited reactive flux).
- (iii) This Hold furnace is a Group 1 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iv) Salt used consists of magnesium chloride (60%) and potassium chloride (40%)
- (v) Construction commenced:  
The DC1 hold furnace was constructed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production

**1. Operating Limitations:**

- a. Total aluminum outputs for DC1 Hold Furnace shall not exceed 60,000 lbs/hr and 250,530 tons/yr. Compliance with the monthly aluminum output limit shall be monitored each month by comparing the allowable hourly output rate to the total aluminum output each month divided by the hours of operation each month. Compliance with the yearly aluminum output limit shall be determined by summing the monthly aluminum output on a 12-month rolling average.
- b. Total natural gas usage for the DC1 Hold Furnace shall not exceed 51.84 MMCF/yr. Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Total chlorine usage shall not exceed 0.49lbs per ton of aluminum produced. Compliance with the fluxing chlorine usage rate shall be monitored each month by calculating chlorine content in total salt usage per ton of aluminum produced.
- d. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total. To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12-month period.

**Operating Requirements:**

- a. Aluminum output:
  - Maintain a log that records the weight of aluminum outputs. Operate in accordance with OM&M plan.
- b. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Reactive flux injection rate:
  - Maintain reactive flux injection rate (lbs/hr) at or below rate used during the performance test for each furnace cycle or time period used in the performance test.
- d. Site-specific monitoring plan:
  - Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
- e. Feed material (melting/holding furnace)
  - Use only clean charge.

### 2. Emission Limitations:

- a. Visible emissions from the DC1 Hold Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from the DC1 Hold Furnace shall not exceed 6.0 lbs/hr and 25.053 tons/yr, as well as 0.4 lbs/ton of feed.
- c. Hydrochloric Acid (HCl) emissions shall not exceed 0.4 lbs/ton of feed.
- d. If the individual limits in (b) and (c) is not met, Logan Aluminum shall meet the SAPU limit.
- e. See group requirements on page 87.

### Compliance Demonstration:

- a. Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- b. Overall Particulate Matter emission limits for the secondary aluminum processing unit [kg/mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{PM} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{PM}$  = The Particulate Matter emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Overall HCl emission limit for the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{HCl} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{HCl}$  = The HCl emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

### 3. Testing Requirements:

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.

Logan Aluminum shall conduct a performance test once per lifetime of this permit to measure emissions of HCl and PM at the furnace exhaust outlet. The results of the performance tests are used to establish emission rates in lbs/ton of feed/charge for PM and HCl. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation below:

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n T_i}$$

Where,  $E_{day}$  = The daily PM or HCl emission rate for the secondary aluminum processing unit for the 24-hour period.

$T_i$  = The total amount of feed, or aluminum produced, for emission unit I for the 24-hour period (tons).

$ER_i$  = The measured emission rate for emission unit i as determined in the performance test (lb/ton of feed/charge)

n = The number of emission units in the secondary aluminum processing unit.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the following:
  - Monthly Aluminum outputs for DC1 Hold Furnace.
  - Natural gas usage.
  - Visible emissions on a monthly basis using U.S. EPA Reference Method 9.Maintain records for two years.
- b. Aluminum Output:
  - Record weight of aluminum outputs using a weight measurement device or other procedure with accuracy of  $\pm 1\%$ ; calibrate according to manufacturer's specifications, or at least once every 6 months.
- c. Labeling:
  - Check monthly to confirm that the diagrams in the computer database are readily available.
- d. Fluxing in sidewall furnace hearth:
  - Not applicable. This hold furnace has no sidewall.
- e. Reactive flux injection rate:
  - Record time, weight (bag weight from manufacturer) and type of reactive flux added or injected daily while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
- f. OM&M plan:
  - Logan Aluminum has demonstrated site-specific monitoring procedures that provide date and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
- g. Feed material (melting/holding furnace):
  - Record type of permissible feed/charge material; certify charge material every 6 months.

**5. Specific Record keeping Requirements:**

Retain records of the following for the DC1 Hold Furnace:

- Aluminum outputs.
- Natural gas usage.
- Fluxing salt usage and its chlorine content.
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

7. **Specific Control Equipment Conditions:** NA
8. **State-Origin Requirements:** NA
9. **Alternate Operating Scenarios:** NA
10. **Compliance Schedule:** NA
11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emission Unit: 03 (1005-4A&B) DC2 Preheater and Melt Furnace (West)**

**Description:**

- (i) The melt furnace processes aluminum pigs, sows, alloys and scrap (clean charge and no reactive flux).
- (ii) This melt furnace is a Group 2 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iii) Construction commenced:  
The Preheater and the Melt furnace were installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production

**1. Operating Limitations:**

- a. Total aluminum charged to the DC2 Melt Furnace shall not exceed 60,000 lbs/hr and 250,530 tons/yr. Compliance with the aluminum charge rate limit shall be monitored each month by comparing the allowable hourly charge rate to the total aluminum charged each month. Compliance with the aluminum charge rate limit shall be monitored each month by comparing the allowable hourly charge rate to the total aluminum charged each month divided by the hours of operation each month. Compliance with the yearly aluminum charge limit shall be determined by summing the monthly aluminum charge on a 12-month rolling average.
- b. Total natural gas usage rate for the DC2 Melt Furnace shall not exceed 503.31 MMCF/yr. Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. No coated scrap (dirty charge) shall be charged to the DC2 Melt Furnace.
- d. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total. To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**Operating Requirements:**

- a. Charge/feed weight or Production weight:
  - Operate a device that records the weight of each charge. Operate in accordance with operation, maintenance, and monitoring plan.
- b. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- c. Charge and flux material:
    - Use only clean charge and no reactive flux.
2. **Emission Limitations:**
  - a. Visible emissions from the DC2 Preheater and Melt Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
  - b. Particulate emissions from the DC2 Preheater and Melt Furnace shall not exceed 6.0 lbs/hr and 25.053 tons/yr.  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)] The emission factor was obtained from a stack test.
  - c. See group requirements on page 87.
3. **Testing Requirements:**

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.
4. **Specific Monitoring Requirements:**
  - a. Logan Aluminum shall monitor the following:
    - Monthly aluminum charged to the DC2 Melt Furnace.
    - Natural gas usage.
    - Visible emissions on a monthly basis using EPA Reference Method 9 and maintain records for two years.
  - b. Charge and flux materials:
    - Record charge and flux material; certify every 6 months for clean charge and no reactive flux.
5. **Specific Record keeping Requirements:**

Retain records of the following for the DC2 Preheater and Melt Furnace:

  - Aluminum charged.
  - Natural gas usage.
  - Percent coated scrap per charge.
  - Operating hours.
  - Pollutant emissions.
  - Records specified in the Specific Monitoring Requirements.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

7. **Specific Reporting Requirements:**
  - a. Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.
  - b. Submit semi-annual certification to Bowling Green Regional office that only clean charge and no reactive flux was used in the furnace.
  - c. Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.
8. **Specific Control Equipment Conditions:** NA
9. **State-Origin Requirements:** NA
10. **Alternate Operating Scenarios:** NA
11. **Compliance Schedule:** NA
12. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions Unit: 17 (1005-5) DC2 Hold Furnace (West)****Description:**

- (i) The holding furnace holds molten aluminum.
- (ii) Hold furnace is to flow metal into flux boxes (clean charge and limited reactive flux).
- (iii) This Hold furnace is a Group 1 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iv) Salt used consists of magnesium chloride (60%) and potassium chloride (40%)
- (v) Construction commenced:  
The DC2 hold furnace was constructed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production.

**1. Operating Limitations:**

- a. Total aluminum outputs for DC1 Hold Furnace shall not exceed 60,000 lbs/hr and 250,530 tons/yr. Compliance with the monthly aluminum output limit shall be monitored each month by comparing the allowable hourly output rate to the total aluminum output each month divided by the hours of operation each month. Compliance with the yearly aluminum output limit shall be determined by summing the monthly aluminum output on a 12-month rolling average.
- b. Total natural gas usage for the DC2 Hold Furnace shall not exceed 51.84 MMCF/yr. Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Total chlorine usage shall not exceed 0.49lbs per ton of aluminum produced. Compliance with the fluxing chlorine usage rate shall be monitored each month by calculating chlorine content in total salt usage per ton of aluminum produced.
- d. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12-month period.

**Operating Requirements:**

- a. Aluminum output:
  - Maintain a log that records the weight of aluminum outputs. Operate in accordance with OM&M plan.
- b. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.

## SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Reactive flux injection rate:
  - Maintain reactive flux injection rate (lbs/hr) at or below rate used during the performance test for each furnace cycle or time period used in the performance test.
- d. Site-specific monitoring plan:
  - Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
- e. Feed material (melting/holding furnace)
  - Use only clean charge.

### 2. Emission Limitations:

- a. Visible emissions from the DC2 Hold Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from the DC2 Hold Furnace shall not exceed 6.0 lbs/hr and 25.053 tons/yr, as well as 0.4 lbs/ton of feed.
- c. Hydrochloric Acid (HCl) emissions shall not exceed 0.4 lbs/ton of feed.
- d. If the limits in I is not met, Logan Aluminum shall meet the SAPU limit.
- e. See group requirements on page 87.

### Compliance Demonstration:

- a. Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- b. Overall Particulate Matter emission limits for the secondary aluminum processing unit [kg/mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{PM} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{PM}$  = The Particulate Matter emission limit for individual unit I in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

N = The number of units in the secondary aluminum processing unit.

## SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Overall HCl emission limit for the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{HCl} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{HCl}$  = The HCl emission limit for individual unit I in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

$N$  = The number of units in the secondary aluminum processing unit.

### 3. Testing Requirements:

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.

Logan Aluminum shall conduct a performance test once per lifetime of this permit to measure emissions of HCl and PM at the furnace exhaust outlet. The results of the performance tests are used to establish emission rates in lbs/ton of feed/charge for PM and HCl. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation below:

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n T_i}$$

Where,  $E_{day}$  = The daily PM or HCl emission rate for the secondary aluminum processing unit for the 24-hour period.

$T_i$  = The total amount of feed, or aluminum produced, for emission unit I for the 24-hour period (tons).

$ER_i$  = The measured emission rate for emission unit I as determined in the performance test (lb/ton of feed/charge)

$n$  = The number of emission units in the secondary aluminum processing unit.

**SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the following:
  - Aluminum outputs for DC2 Hold Furnace;
  - Natural gas usage.
  - Visible emissions on monthly basis using U.S.EPA Reference Method 9 and maintain records for two years.
- b. Aluminum Output:
  - Record weight of aluminum outputs using weight measurements device or other procedure with accuracy of  $\pm 1\%$ ; calibrate according to manufacturers specifications, or at least once every 6 months.
- c. Labeling:
  - Check monthly to confirm that the diagrams in computer database are readily available.
- d. Fluxing in sidewell furnace hearth:
  - Not applicable. This hold furnace has no sidewell.
- e. Reactive flux injection rate:
  - Record time, weight (bag weight from manufacturer) and type of reactive flux added or injected daily while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
- f. OM&M plan:
  - Logan Aluminum has demonstrated site-specific monitoring procedures that provide date and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
- g. Feed material (melting/holding furnace):
  - Record type of permissible feed/charge material; certify charge material every 6 months.

**5. Specific Record keeping Requirements:**

Retain records of the following for the DC2 Hold Furnace:

- Monthly aluminum outputs.
- Natural gas usage.
- Fluxing salt usage and its chlorine content.
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

7. **Specific Control Equipment Conditions:** NA
8. **State-Origin Requirements:** NA
9. **Alternate Operating Scenarios:** NA
10. **Compliance Schedule:** NA
11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 40 (1006-2) DC3 Melt Furnace**

**Description:**

- i) The melt furnace processes aluminum pigs, sows, alloys and scrap (clean charge and no reactive flux).
- ii) This melt furnace is a Group 2 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- iii) Construction commenced:  
The Melt Furnace was installed on November 26, 1991.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production.

**1. Operating Limitations:**

- a. Total aluminum charged to the DC3 Melt Furnace shall not exceed 88,333 lbs/hr and 368,834 tons/yr. Compliance with the aluminum charge rate limit shall be monitored each month by comparing the allowable hourly charge rate to the total aluminum charged each month divided by the hours of operation each month. Compliance with the yearly aluminum charge limit shall be determined by summing the monthly aluminum charge on a 12-month rolling average.
- b. Total natural gas usage rate for the DC3 Melt Furnace shall not exceed 589.95 MMCF/yr. Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total. To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**Operating Requirements:**

- a. Charge/feed weight or Production weight:
  - Operate a device that records the weight of each charge. Operate in accordance with operation, maintenance, and monitoring plan.
- b. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.

**SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- c. Charge and flux material:
    - Use only clean charge. Use no reactive flux.
2. **Emission Limitations:**
- a. Visible emissions from the DC3 Melt Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
  - b. Particulate emissions from the DC3 Melt Furnace shall not exceed 31.73 lbs/hr and 138.99 tons/yr. [401 KAR 59:010, Section 3(2)]  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)] The emission factor was obtained from a stack test.
  - c. See group requirements on page 87.
3. **Testing Requirements:**  
Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.
4. **Specific Monitoring Requirements:**
- a. Logan Aluminum shall monitor the following:
    - Aluminum charged to the DC3 Melt Furnace.
    - Natural gas usage.
    - Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.
  - b. Charge and flux materials:
    - Record charge and flux material; certify every 6 months for clean charge and no reactive flux.
5. **Specific Record keeping Requirements:**  
Retain records of the following for DC3 Melt Furnace:
- Monthly aluminum charged.
  - Natural gas usage.
  - Operating hours.
  - Pollutant emissions.
  - Records specified in the Specific Monitoring Requirements.

**SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

6. **Specific Reporting Requirements:**

- a. Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.
- b. Submit semi-annual certification to Bowling Green Regional office that only clean charge and no reactive flux was used in the furnace.
- c. Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions unit: 42 (1006-2)****DC3 Hold Furnace****Description:**

- (i) The holding furnace holds molten aluminum.
- (ii) Hold furnace is to flow metal into flux boxes (clean charge and limited reactive flux).
- (iii) This Hold furnace is a Group 1 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iv) Salt used consists of magnesium chloride (60%) and potassium chloride (40%)
- (v) Construction commenced:  
The DC1 hold furnace was constructed on November 26, 1991.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production

**1. Operating Limitations:**

- a. Total aluminum outputs for DC3 Hold Furnace shall not exceed 81,667 lbs/hr and 341,000 tons/yr. Compliance with the monthly aluminum output limit shall be monitored each month by comparing the allowable hourly output rate to the total aluminum output each month divided by the hours of operation each month. Compliance with the yearly aluminum output limit shall be determined by summing the monthly aluminum output on a 12-month rolling average.
- b. Total natural gas usage rate for the DC3 Hold Furnace shall not exceed 78.24 MMCF/yr.  
Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Total chlorine usage shall not exceed 0.49lbs per ton of aluminum produced. Compliance with the fluxing chlorine usage rate shall be monitored each month by calculating chlorine content in total salt usage per ton of aluminum produced.
- d. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Operating Requirements:

- a. Aluminum output:
    - Maintain a log that records the weight of aluminum outputs. Operate in accordance with OM&M plan.
  - b. Labeling:
    - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.
  - c. Reactive flux injection rate:
    - Maintain reactive flux injection rate (lbs/hr) at or below rate used during the performance test for each furnace cycle or time period used in the performance test.
  - d. Site-specific monitoring plan:
    - Operate furnace within the range of charge materials, contaminant levels, and parameter values established in the site-specific monitoring plan.
  - e. Feed material (melting/holding furnace)
    - Use only clean charge.
2. **Emission Limitations:**
- a. Visible emissions from the DC3 Hold Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
  - b. Particulate emissions from the DC3 Hold Furnace shall not exceed 31.33 lbs/hr and 137.23 tons/yr [401 KAR 59:010, Section 3(2)], as well as 0.4 lbs/ton of feed.
  - c. Hydrochloric Acid (HCl) emissions shall not exceed 0.4 lbs/ton of feed.
  - d. If the individual limits in (b) and (c) is not met, Logan Aluminum shall meet the SAPU limit.
  - e. See group requirements on page 87.

### Compliance Demonstration:

- a. Particulate emission rate in (lbs/hour) = [ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- b. Overall Particulate Matter emission limits for the secondary aluminum processing unit [kg/mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{PM} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{PM}$  = The Particulate Matter emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Overall HCl emission limit for the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{HCl} \times T_i)}{\sum_i^n (T_i)}$$

Where,  $L_{HCl}$  = The HCl emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

### 3. **Testing Requirements:**

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.

Logan Aluminum shall conduct a performance test once per lifetime of this permit to measure emissions of HCl and PM at the furnace exhaust outlet. The results of the performance tests are used to establish emission rates in lbs/ton of feed/charge for PM and HCl. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation below:

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n T_i}$$

Where,  $E_{day}$  = The daily PM or HCl emission rate for the secondary aluminum processing unit for the 24-hour period.

$T_i$  = The total amount of feed, or aluminum produced, for emission unit I for the 24-hour period (tons).

$ER_i$  = The measured emission rate for emission unit i as determined in the performance test (lb/ton of feed/charge)

n = The number of emission units in the secondary aluminum processing unit.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the following:
  - Aluminum outputs for DC3 Hold Furnace.
  - Monthly hours of operation.
  - Natural gas usage.
  - Fluxing salt usage and its chlorine content.
  - Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.
- b. Aluminum Output:
  - Record weight of aluminum outputs using weight measurements device or other procedure with accuracy of  $\pm 1\%$ ; calibrate according to manufacturers specifications, or at least once every 6 months.
- c. Labeling:
  - Check monthly to confirm that the diagrams in computer database are readily available.
- d. Fluxing in sidewall furnace hearth:
  - Not applicable. This hold furnace has no sidewall.
- e. Reactive flux injection rate:
  - Record time, weight (bag weight from manufacturer) and type of reactive flux added or injected daily while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
- f. OM&M plan:
  - Logan Aluminum has demonstrated site-specific monitoring procedures that provide date and show correlation of emissions across the range of charge and flux materials and furnace operating parameters.
- g. Feed material (melting/holding furnace):
  - Record type of permissible feed/charge material; certify charge material every 6 months.

**5. Specific Record keeping Requirements:**

Retain records of the following for the DC3 Hold Furnace:

- Monthly aluminum outputs.
- Monthly hours of operation.
- Natural gas usage.
- Fluxing salt usage and its chlorine content.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

6. **Specific Reporting Requirements:**

The permittee shall report all the visible emissions readings that are in excess of the 20% limit specified in this permit on semiannual basis to the Division's Bowling Green Regional office.

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions unit: 27 (1008-1)****Reservoir Furnace****Description:**

- (i) The Reservoir Furnace holds molten aluminum (clean charge and no reactive flux).
- (ii) This Reservoir furnace is a Group 2 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iii) Construction commenced:  
The Reservoir Furnace was installed on October 2, 1997.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production

**1. Operating Limitations:**

- a. Total aluminum outputs for Reservoir Furnace shall not exceed 60,000 lbs/hr and 262,800 tons/yr.  
Compliance with the aluminum output rate limit shall be monitored each month by comparing the allowable hourly output rate to the total aluminum output each month divided by the hours of operation each month.
- b. Total natural gas usage rate for the Reservoir Furnace shall not exceed 365.00 MMCF/yr.  
Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate
- c. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**Operating Requirements:**

- a. Aluminum output:
  - Maintain a log that records the weight of aluminum outputs. Operate in accordance with OM&M plan.
- b. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.
- c. Charge and flux material:
  - Use only clean charge. Use no reactive flux.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

2. **Emission Limitations:**

- a. Visible emissions from the Reservoir Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from the Reservoir Furnace shall not exceed 6.0 lbs/hr and 26.28 tons/yr.  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- c. See group requirements on page 87.

3. **Testing Requirements:**

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.

4. **Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the following:
  - Monthly aluminum output for Reservoir Furnace;
  - Natural gas usage.
  - Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.
- b. Charge and flux materials:
  - Record charge and flux material; certify every 6 months for clean charge and no reactive flux.

5. **Specific Record keeping Requirements:**

Retain records of the following for the Reservoir Furnace:

- Aluminum output.
- Natural gas usage.
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

6. **Specific Reporting Requirements:**

- a. Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.
- b. Submit semi-annual certification to Bowling Green Regional office that only clean charge and no reactive flux was used in the furnace.
- c. Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emission unit: 26 (1009-1A,B,C) swarf Furnace 1**

**Description:**

- (i) There are two emission points associated with the swarf Furnace. This portion is responsible for melting the chips and light gauge scrap and it is equipped with a baghouse (dirty charge and limited reactive flux).
- (ii) This swarf furnace is Group 1 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iii) Construction commenced:  
The swarf Furnace and the baghouse were installed on November 15, 1997.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

401 KAR 53:010, Section 1, Ambient air quality standards with an applicability date: April 14, 1988.

40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production

**1. Operating Limitations:**

- a. Total aluminum output for swarf Furnace/molten metal holder shall not exceed 25,000 lbs/hr and 80,000 tons/yr. Compliance with the aluminum output rate limits shall be monitored each month by comparing the allowable hourly output rates to the total aluminum output each month divided by the hours of operation each month. Compliance with the yearly aluminum output limit shall be determined by summing the monthly aluminum output on a 12-month rolling average.
- b. Total natural gas usage rate for the swarf Furnace shall not exceed 200.00 MMCF/yr. Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Total fluxing salt usage rate for the swarf furnace shall not exceed 400 lbs/hr. Compliance with the fluxing salt usage rate shall be monitored each month by comparing the allowable hourly usage rate to the total fluxing salt usage each month divided by the hours of operation each month.
- d. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Operating Requirements:**

- a. Emission capture and collection system:
  - Design and install in accordance with industrial Ventilation: A hand-book of Recommended Practice; operate in accordance with Operation, maintenance, and monitoring plan (OM&M plan).
- b. Aluminum output:
  - Maintain a log that records the weight of aluminum outputs. Operate in accordance with OM&M plan.
- c. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.
- d. Bag leak detector:
  - Initiate corrective action with 1-hr alarm; operate such that alarm does not sound more than 5% of operating time in 6-month period; complete corrective action in accordance with the OM&M plan.
- e. Fabric Filter inlet temperature:
  - Maintain average fabric filter inlet temperature for each 3-hour period at or below average temperature during the performance test at +14<sup>0</sup>C (+25<sup>0</sup>F)
- f. Lime injection rate:
  - Maintain free-flowing lime in the feed hopper or silo at all times for continuous injection system; maintain feeder setting at level established during the performance test for continuous injection systems.
- g. Reactive flux injection rate:
  - Maintain reactive flux injection rate (lbs/hr) at or below rate used during the performance test for each furnace cycle.
- h. Maintain molten level:
  - Operate side-well furnaces such that the level of molten metal is above the top of the passage between the side-well of the furnace unless the hearth is also controlled.
- i. Fluxing in side-well furnace hearth:
  - Add reactive flux only to the side-well of the furnace unless the hearth is also controlled.

**2. Emission Limitations:**

- a. Visible emissions from the swarf Furnace shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from the swarf Furnace shall not exceed 6.0 lbs/hr and 26.28 tons/yr, as well as 0.4 lbs/ton of feed.
- c. Hydrochloric Acid (HCl) emissions from the swarf furnace shall not exceed 0.4 lbs/ton of feed.
- d. Dioxin Furan (D/F) emissions from the swarf furnace shall not exceed 15.0 µg TEQ/Mg of feed.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- e. Fluoride emissions shall not cause exceedances of any of the following secondary standards [401 KAR 53:010, Section 1 ]:  
 The 12-hour average of 3.68 ug/m<sup>3</sup>  
 The 24-hour average of 2.86 ug/m<sup>3</sup>  
 The one week average of 1.64 ug/m<sup>3</sup>  
 The one month average of 0.82 ug/m<sup>3</sup>  
 Compliance with the fluoride ambient air quality standard by using record keeping shall be acceptable.
- f. If the individual limits in (b), (c) and (d) is not met, Logan Aluminum shall meet the SAPU limit.
- g. See group requirements on page 87.

### Compliance Demonstration:

- a. Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
 The emission factor was obtained from a stack test.
- b. Overall Particulate Matter emission limits for the secondary aluminum processing unit [kg/mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{PM} \times T_i)}{\sum_i (T_i)}$$

Where,  $L_{PM}$  = The Particulate Matter emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

- c. Overall HCl emission limit for the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$$= \frac{\sum_{i=1}^n (L_{HCl} \times T_i)}{\sum_i (T_i)}$$

Where,  $L_{HCl}$  = The HCl emission limit for individual unit i in the secondary aluminum processing unit [kg/Mg (lbs/ton) of feed]

$T_i$  = The feed rate for individual emission unit I in the secondary aluminum processing unit.

n = The number of units in the secondary aluminum processing unit.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. The overall D/F emission limit for the secondary aluminum processing unit [ $\mu\text{g TEQ/Mg (lbs/ton)}$  of feed]

$$= \frac{\sum_{i=1}^n (L_{D/F} \times T_i)}{\sum_i (T_i)}$$

Where,  $L_{D/F}$  = The D/F emission limit for the individual unit  $i$  [ $\mu\text{g TEQ/Mg (lbs/ton)}$  of feed]

$T_i$  = The feed rate for individual emission unit  $i$  in the secondary aluminum processing unit.

$n$  = The number of units in the secondary aluminum processing unit.

### 3. **Testing Requirements:**

Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.

Logan Aluminum shall conduct a performance test before the year 2007 to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet. The results of the performance tests are used to establish emission rates in lbs/ton of feed/charge for PM and HCl and  $\mu\text{g TEQ/Mg}$  of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the 3-day, 24-hour rolling average emission rates using the equation below:

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n T_i}$$

Where,  $E_{day}$  = The daily PM, HCl or D/F emission rate for the secondary aluminum processing unit for the 24-hour period.

$T_i$  = The total amount of feed, or aluminum produced, for emission unit  $i$  for the 24-hour period (tons).

$ER_i$  = The measured emission rate for emission unit  $i$  as determined in the performance test (lb/ton of feed/charge or  $\mu\text{g/Mg}$  of feed/charge)

$n$  = The number of emission units in the secondary aluminum processing unit.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the following:
  - Natural gas usage;
  - Visible emissions on a monthly basis using U.S.EPA Reference Method 9 and maintain records for two years.
- b. Emission capture and collection:
  - Annual inspection of all emission capture, collection, and transport systems to ensure that systems continue to operate in accordance with ACGIP standards.
- c. Aluminum Output:
  - Record weight of aluminum outputs using a weight measurement device or other procedure with accuracy of  $\pm 1\%$ ; calibrate according to manufacturer's specifications, or at least once every 6 months.
- d. Labeling:
  - Check monthly to confirm that the diagrams in the computer database are readily available.
- e. Bag leak detector:
  - Install and operate in accordance with "Fabric Filter bag Leak Detection Guidance"; record voltage output from bag leak detector.
- f. Reactive flux injection rate:
  - Weight measurements device accuracy of  $\pm 1\%$ ; calibrate according to manufacturer's specifications or at least once every 6 months; record time, weight and type of reactive flux added or injected for each 15-minute block period while reactive fluxing occurs; calculate and record total reactive flux injection rate for each operating cycle or time period used in performance test.
- g. Lime injection rate:
  - For continuous injection systems, the alarm system (Triboelectric flow indicator) that notifies if the lime is not flowing shall be in good operating condition at all times. Inspect the lime injection system once per month to ensure proper operation; record results of each visual inspection..
- h. Fabric filter inlet temperature:
  - Continuous measurement device to meet specifications in 40 CFR Part 63 Subpart RRR section 63.1510(h)(2); record temperatures in 15-minute block averages; determine and record 3-hr block averages.
- i. Maintain molten aluminum level in side-well furnace:
  - Maintain aluminum level using radar for operating log; certify every 6 months.

**5. Specific Record keeping Requirements:**

Retain records of the following:

- Natural gas usage.
- Fluxing salt usage.
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements semi-annually.

7. **Specific Control Equipment Conditions:**

The swarf Furnace Baghouse shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (swarf Furnace), in accordance with the manufacturer's specifications. Maintain on site daily log of the pressure drop across the baghouse, and ensure it remains in the proper operating range.

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions unit: 25 (1009-1)**

**swarf furnace/scalper chip conveyer**

**Description:**

- (i) This portion of the swarf Furnace is responsible for feeding the chips and light gauge scrap to the furnace using a cyclone. Notice the cyclone does not act as control equipment.
- (ii) Construction commenced: The swarf furnace/scalper chip conveyer was installed on Nov. 15, 1997.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

1. **Operating Limitations:**

The scalper chip feed rate shall not exceed 20,000 lbs/hr and 61,000 tons/yr.

Compliance with the scalper chip feed rate shall be monitored each month by comparing the allowable hourly feed rate to the total scalper chip feed rate each month divided by the hours of operation each month. Compliance with the yearly scalper chip feed limit shall be determined by summing the monthly scalper chip feed on a 12-month rolling average.

2. **Emission Limitations:**

- a. Visible emissions shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions shall not exceed 6.0 lbs/hr and 26.28 tons/yr.  
Particulate emission rate in (lbs/hour) = Aluminum ingots processed through scalper each month x 0.05 (weight fraction scalped) x emission factor of 0.0001/operating hours per month.

3. **Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. **Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the annual scalped ingot output as a rolling 12-month total.
- b. Logan Aluminum shall monitor visible emissions on monthly basis using U.S.EPA Reference Method 9 and maintain records for two years.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

5. **Specific Record keeping Requirements:**

Retain records of the scalper chips charged.

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:**

The cyclone is an integral part of the process. The cyclone does not act as control equipment.

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions unit: 05 (2005-1A,B,C)****Scalper 1****Description:**

- (i) The Scalper is used to scalp the aluminum ingots. The scalped aluminum pieces are fed into storage bins using three cyclones. Notice the cyclones are an integral part of the process and should not be treated as control equipment.
- (ii) Construction commenced:  
Scalper 1, Cyclones 1 and 2 were installed on June 15, 1981.  
Cyclone 3 was installed on February 2, 1994.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975

**1. Operating Limitations:**

Total annual output of scalped ingots shall not exceed 424,000 lbs/hr and 1,210,000 tons/yr. Compliance with the scalped ingot output rate shall be monitored each month by comparing the allowable hourly output to the total scalped ingot output each month divided by the hours of operation per month.

**2. Emission Limitations:**

- a. Visible emissions shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions shall not exceed 40.79 lbs/hr and 178.64 tons/yr [ 401 KAR 59:010, Section 3(2)]  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]
- c. See group requirements on page 87.

**3. Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**4. Specific Monitoring Requirements:**

- a. Logan Aluminum shall monitor the annual scalped ingot output as a rolling 12-month total.
- b. Logan Aluminum shall monitor visible emissions on monthly basis using U.S.EPA Reference Method 9 and maintain records for two years.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

5. **Specific Record keeping Requirements:**

Retain records of the following:

- Scalped ingot output.
- Operating hours.
- Pollutant emissions.

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:**

Cyclone 1, Cyclone 2, and Cyclone 3 are an integral part of the process and shall not be considered as control equipment.

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions units: 06 (2010-A&B) Carbottom Furnaces 1, 2, 3, 4, 5, 6, and 7**

**Description:**

- (i) The Carbottom Furnaces are used to heat the aluminum ingots prior to rolling.
- (ii) Construction commenced:  
All seven Carbottom Furnaces were installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975

1. **Operating Limitations:**

- a. Total aluminum throughput for Carbottom Furnaces 1, 2, 3, 4, 5, 6, and 7 shall not exceed 274,400 lbs/hr and 1,201,872 tons/yr.  
Compliance with the aluminum throughput limit shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month.
- b. Total natural gas usage rates for Carbottom Furnaces 1, 2, 3, 4, 5, 6, and 7 shall not exceed 515.29 MMCF/yr.  
Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

2. **Emission Limitations:**

Visible emissions from Carbottom Furnaces 1, 2, 3, 4, 5, 6, and 7 shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].

3. **Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

4. **Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughput.
- Natural gas usage.
- Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.

5. **Specific Record Keeping Requirements:**

Retain records of the following:

- Aluminum throughput.
- Natural gas usage.
- Operating hours.
- Pollutant emissions.

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions unit: 18 (2011-A) Pusher Furnaces 1 and 2****Description:**

- (i) The Pusher Furnaces are similar to the Carbottom Furnaces in operation. They are used to heat the aluminum ingots prior to rolling.
- (ii) Construction commenced:  
The Pusher Furnaces were installed on January 16, 1990.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975

**1. Operating Limitations:**

- a. Total aluminum throughputs for Pusher Furnaces 1 and 2 shall not exceed 182,650 lbs/hr and 800,007 tons/yr.  
Compliance with the aluminum throughput limit shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month.
- b. Total natural gas usage rate for Pusher Furnaces 1 and 2 shall not exceed 590.00 MMCF/yr.  
Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.(total for two furnaces)  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**2. Emission Limitations:**

- a. Visible emissions from Pusher Furnaces 1 and 2 shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from Pusher Furnaces 1 and 2 shall not exceed 6 lbs/hr and 26.28 tons/yr.  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- c. See group requirements on page 87.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

3. **Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. **Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughputs for Pusher Furnaces 1 and 2.
- Natural gas usage.
- Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.

5. **Specific Record keeping Requirements:**

Retain records of the following:

- Aluminum throughputs.
- Natural gas usage.
- Operating hours.
- Pollutant emissions.

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions unit: 07 (2015-1)**

**Reversing Mill**

**Description:**

- (i) The Reversing Mill is used to roll aluminum ingots and is equipped with an Inertial Separator to control VOC/PM emissions.
- (ii) Construction commenced:  
The Reversing Mill and the Inertial Separator was installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

1. **Operating Limitations:**

- a. Total aluminum throughputs for the Reversing Mill shall not exceed 375,000 lbs/hr and 1,481,250 tons/yr. Compliance with the aluminum throughput limit shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month. Compliance with the yearly aluminum throughput limit shall be determined by summing the monthly aluminum throughput on a 12-month rolling average.
- b. Total severely hydrotreated mineral oil usage rates for the Reversing Mill shall not exceed 11,556 gals/month and 138,672 gals/yr.  
Compliance with the severely hydrotreated mineral oil usage rate shall be monitored by comparing the allowable monthly throughput rate to the total severely hydrotreated mineral oil used each month. Records of severely hydrotreated mineral oil disposed of, transferred offsite, and returned to supplier can be subtracted from the total usage. Logan aluminum shall be allowed three months from the issuance date of this permit to install the metering system necessary to show compliance.

2. **Emission Limitations:**

- a. Visible emissions from the Reversing Mill shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from the Reversing Mill shall not exceed 15 lbs/hr and 59.25 tons/yr .  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- c. See group requirements on page 87.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**4. Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughput.
- Severely hydrotreated mineral oil usage.
- Logan Aluminum shall monitor visible emissions on a weekly basis using U.S.EPA Reference Method 9 and maintain records for two years.

**5. Specific Recordkeeping Requirements:**

Retain records of the following:

- Aluminum throughput.
- Severely hydrotreated mineral oil usage (severely hydrotreated mineral oil disposed of, transferred offsite, and returned to supplier can be subtracted from total usage).
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**7. Specific Control Equipment Conditions:**

The Reversing Mill Inertial Separator shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (Reversing Mill) in accordance with the manufacturer's specifications.

Maintain on site daily log of the pressure drop across the inertial separator and ensure it remains within the proper operating range.

**8. State-Origin Requirements: NA****9. Alternate Operating Scenarios: NA****10. Compliance Schedule: NA****11. Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions units: 8 (2015-2)****Finishing Mill****Description:**

- (i) The Finishing Mill is used to roll the aluminum ingots to a certain thickness and is equipped with an Inertial Separator to control PM/VOC emissions.
- (ii) Construction commenced:  
The Finishing Mill and the Inertial Separator were installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

**1. Operating Limitations:**

- a. Total annual aluminum throughputs for the Finishing Mill shall not exceed 350,000 lbs/hr and 1,382,500 tons/yr. Compliance with the aluminum throughput limit shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month. Compliance with the yearly aluminum throughput limit shall be determined by summing the monthly aluminum throughput on a 12-month rolling average.
- b. Total severely hydrotreated mineral oil usage for the Finishing Mill shall not exceed 38,573 gals/month and 462,876 gals/yr.  
Compliance with the severely hydrotreated mineral oil usage rate shall be monitored by comparing the allowable monthly throughput rate to the total severely hydrotreated mineral oil used each month. Records of severely hydrotreated mineral oil disposed of, transferred offsite, and returned to supplier can be subtracted from the total usage. Logan aluminum shall be allowed three months from the issuance date of this permit to install the metering system necessary to show compliance.

**2. Emission Limitations:**

- a. Visible emissions from the Finishing Mill shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from the Finishing Mill shall not exceed 15.0 lbs/hr and 59.25 tons/yr.  
Particulate emission rate in (lbs/hour) = [ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- c. See group requirements on page 87.

**3. Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughput.
- Severely hydrotreated mineral oil usage.
- Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.

**5. Specific Recordkeeping Requirements:**

Retain records of the following:

- Aluminum throughput.
- Severely hydrotreated mineral oil usage (severely hydrotreated mineral oil disposed of, transferred offsite, and returned to supplier can be subtracted from total usage).
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**7. Specific Control Equipment Conditions:**

The Finishing Mill Inertial Separator shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (Finishing Mill) in accordance with the manufacturer's specifications.

Maintain on site daily log of the pressure drop across the inertial separator and ensure it remains within the proper operating range.

**8. State-Origin Requirements: NA****9. Alternate Operating Scenarios: NA****10. Compliance Schedule: NA****11. Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions unit: 10 (3005-1)****Cold Mill 1****Description:**

- (i) This is a cold rolling mill equipped with two types of control equipments; a Deep Bed Filter and an Activated Carbon Adsorption unit.
- (ii) Construction commenced:  
Cold Mill 1 and the Activated Carbon Adsorption unit were installed on June 15, 1981.  
The Deep Bed Filter was installed on December 1, 1996.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

**1. Operating Limitations:**

- a. Total aluminum throughputs for Cold Mill 1 shall not exceed 366,667 lbs/hr and 1,510,484 tons/yr. Compliance with the aluminum throughput limit shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month. Compliance with the yearly aluminum throughput limit shall be determined by summing the monthly aluminum throughput on a 12-month rolling average.
- b. Total severely hydrotreated rolling oil usage rates for Cold Mill 1 shall not exceed 25,120 gal/month and 301,440 gal/yr.  
Compliance with the severely hydrotreated mineral oil usage rate shall be monitored by comparing the allowable monthly throughput rate to the total severely hydrotreated mineral oil used each month. Records of severely hydrotreated mineral oil disposed of, transferred offsite, and returned to supplier can be subtracted from the total usage. Logan aluminum shall be allowed three months from the issuance date of this permit to install the metering system necessary to show compliance.

**2. Emission Limitations:**

- a. Visible emissions from Cold Mill 1 shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from Cold Mill 1 shall not exceed 39.84 lbs/hr and 164.12 tons/yr [401 KAR 59:010, Section 3(2)].  
Particulate emission rate in (lbs/hour) =[ Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- c. See group requirements on page 87.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE**

**REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**4. Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughput.
- Severely hydrotreated rolling oil usage.
- Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.

**5. Specific Recordkeeping Requirements:**

Retain records of the following:

- Aluminum throughput.
- Severely hydrotreated rolling oil usage (severely hydrotreated rolling oil disposed of, transferred offsite, and returned to supplier can be subtracted from total usage).
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**7. Specific Control Equipment Conditions:**

The Deep Bed Filter (DBF) and the Purasiv Carbon Adsorption Unit shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (Cold Mill 1). If the severely hydrotreated rolling oil used by Logan Aluminum is delisted as a VOC during the term of this permit, Logan Aluminum shall maintain the DBF and have the option of running the Purasiv Carbon Adsorption Unit.

Maintain on site daily log of the pressure drop across the deep bed filter and ensure it remains within the proper operating range.

**8. State-Origin Requirements: NA****9. Alternate Operating Scenarios: NA****10. Compliance Schedule: NA****11. Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions unit: 14 (3010-1)****Cold Mill 2****Description:**

- (i) Cold rolling mill to roll aluminum ingots with two types of control equipments; Activated Carbon Adsorption unit and a Progressive Purification System.
- (ii) Construction commenced:  
The cold rolling mill and the Activated Carbon Adsorption unit were installed on June 15, 1981.  
The Progressive Purification System was installed on April 5, 1992.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

**1. Operating Limitations:**

- a. Total aluminum throughputs for Cold Mill 2 shall not exceed 134,233 lbs/hr and 556,127 tons/yr. Compliance with the aluminum throughput limit shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month. Compliance with the yearly aluminum output limit shall be determined by summing the monthly aluminum output on a 12-month rolling average.
- b. Total severely hydrotreated rolling oil usages for Cold Mill 2 shall not exceed 17,695 gal/month and 212,340 gal/yr.  
Compliance with the severely hydrotreated mineral oil usage rate shall be monitored by comparing the allowable monthly throughput rate to the total severely hydrotreated mineral oil used each month. Records of severely hydrotreated mineral oil disposed of, transferred offsite, and returned to supplier can be subtracted from the total usage. Logan aluminum shall be allowed three months from the issuance date of this permit to install the metering system necessary to show compliance.

**2. Emission Limitations:**

- a. Visible emissions from Cold Mill 2 shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from Cold Mill 2 shall not exceed 33.93 lbs/hr and 140.57 tons/yr [401 KAR 59:010, Section 3(2)].  
Particulate emission rate in (lbs/hour) = [Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factor was obtained from a stack test.
- c. See group requirements on page 87.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**4. Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughput;
- Severely hydrotreated rolling oil usage.
- Logan Aluminum shall monitor visible emissions on weekly basis using U.S.EPA Reference Method 9 and maintain records for two years.

**5. Specific Recordkeeping Requirements:**

Retain records of the following:

- Aluminum throughput.
- Severely hydrotreated rolling oil usage (severely hydrotreated rolling oil disposed of, transferred offsite, and returned to supplier can be subtracted from total usage).
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit..

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**7. Specific Control Equipment Conditions:**

The Progressive Purification System (PPS) and the Purasiv Carbon Adsorption Unit shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (Cold Mill 2). If the severely hydrotreated rolling oil used by Logan Aluminum is delisted as a VOC during the term of this permit, Logan Aluminum shall maintain the PPS and have the option of running the Purasiv Carbon Adsorption Unit.

Maintain on site daily log of the pressure drop across the Progressive Purification System and ensure it remains within the proper operating range.

**8. State-Origin Requirements: NA****9. Alternate Operating Scenarios: NA****10. Compliance Schedule: NA****11. Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emission Unit: 12 (3030-A,B,C,D) Annealing Furnaces 1, 2, 3, 4, and 5**

**Description:**

- (i) These are natural gas combustion sources.
- (ii) Construction commenced:  
All five annealing furnaces were installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

1. **Operating Limitations:**

- a. Total aluminum throughputs for Annealing Furnaces 1, 2, 3, 4, and 5 shall not exceed 137,000 lbs/hr and 600,060 tons/yr.  
Compliance with the aluminum throughput rate shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month.
- b. Total natural gas usage rate for Annealing Furnaces 1, 2, 3, 4, and 5 shall not exceed 239.76 MMCF/yr.  
Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

2. **Emission Limitations:**

Visible emissions from Annealing Furnaces 1, 2, 3, 4, and 5 shall not equal or exceed 20% [401 KAR 59:010, Section 3(1)(a)].

3. **Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

4. **Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughput.
- Natural gas usage.
- Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.

5. **Specific Recordkeeping Requirements:**

Retain records of the following for Annealing Furnaces 1, 2, 3, 4, and 5:

- Aluminum throughput.
- Natural gas usage.
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions Unit: 21 (3040-1A) Cold Mill 3****Description:**

- (i) Cold rolling mill to roll aluminum ingots with two types of control equipments; Progressive Purification System, and a Condenser
- (ii) Construction commenced:  
The cold rolling mill and the Progressive Purification System were installed on January 7, 1991.  
The Condenser was installed in 1997.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

**1. Operating Limitations:**

- a. Total aluminum throughputs for Cold Mill 3 shall not exceed 192,000 lbs/hr and 758,400 tons/yr. Compliance with the aluminum throughput limit shall be monitored each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month. Compliance with the yearly aluminum output limit shall be determined by summing the monthly aluminum output on a 12-month rolling average.
- b. Total severely hydrotreated rolling oil usages for Cold Mill 3 shall not exceed 48,080 gals/month and 576,960 gals/yr.  
Compliance with the severely hydrotreated mineral oil usage rate shall be monitored by comparing the allowable monthly throughput rate to the total severely hydrotreated mineral oil used each month. Records of severely hydrotreated mineral oil disposed of, transferred offsite, and returned to supplier can be subtracted from the total usage. Logan aluminum shall be allowed three months from the issuance date of this permit to install the metering system necessary to show compliance.

**2. Emission Limitations:**

- a. Visible emissions from Cold Mill 3 shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions from Cold Mill 3 shall not exceed 25.0 lbs/hr and 93.75 tons/yr. Particulate emission rate in (lbs/hour) =[Monthly production rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]  
The emission factors were obtained from a stack test.
- c. VOC emissions from Cold Mill 3 shall not exceed 170 tons/yr to ensure that total emissions from all the emission points listed Section D (6) do not exceed 250 tpy. VOC emission rate in tons/year = [Annual usage rate of oil x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per year)]  
The emission factors were obtained from a stack test.
- d. See group requirements on page 87.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**4. Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Monthly aluminum throughput.
- Severely hydrotreated rolling oil usage.
- Annual VOC emissions.
- Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.

**5. Specific Recordkeeping Requirements:**

Retain records of the following:

- Aluminum throughput.
- Severely hydrotreated rolling oil usage (severely hydrotreated rolling oil disposed of, transferred offsite, and returned to supplier can be subtracted from total usage).
- Operating hours.
- Pollutant emissions.
- Records specified in the Specific Monitoring Requirements.

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**7. Specific Control Equipment Conditions:**

The Cold Mill 3 Water-cooled Condenser and the Progressive Purification System (PPS) shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (Cold Mill 3). If the severely hydrotreated rolling oil used by Logan Aluminum is delisted as a VOC during the term of this permit, Logan Aluminum shall maintain the PPS and have the option of running the Water-cooled Condenser.

Maintain on site daily log of the inlet and outlet temperatures of the gas through the condenser and the pressure drop across the Progressive Purification System and ensure it remains within the proper operating range.

**8. State-Origin Requirements: NA****9. Alternate Operating Scenarios: NA****10. Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 24 (3040-5) Fugitives      Cold Mill 3 Tanks TA01, TA02, and TA05**

**Description:**

- (i) Storage tanks for the CM3 coolant.
- (ii) Construction commenced:  
The tanks were installed on June 26, 1991.

**APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:485 “Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984, is governed by 40 CFR 60, Subpart Kb. The cold mill tanks are subject to 40 CFR 60.116b(a) and (b).

- 1. **Operating Limitations:** NA
- 2. **Emission Limitations:** NA  
See group requirements.
- 3. **Testing Requirements:** NA
- 4. **Specific Monitoring Requirements:** NA
- 5. **Specific Recordkeeping Requirements:**  
Retain records showing the dimensions and capacity of the Cold Mill 3 Tanks TA01, TA02, and TA05 for the life of the tanks [40 CFR 60.116b(b)].
- 6. **Specific Reporting Requirements:** NA
- 7. **Specific Control Equipment Conditions:** NA
- 8. **State-Origin Requirements:** NA
- 9. **Alternate Operating Scenarios:** NA
- 10. **Compliance Schedule:** NA
- 11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions Unit: 15 (4021-A)****Boilers 1, 2, and 3****Description:**

- (i) Steam boilers, manufactured by Thomas industrial boiler.
- (ii) Primary fuel is natural gas.
- (iii) Backup fuels are used oil and propane.
- (iv) Maximum rated capacity is 22 mmBTU/hr each.
- (v) Construction commenced:
  - Boilers 1 and 2 were installed on June 15, 1981.
  - Boiler 3 was installed on June 15, 1986.

**APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:015, New indirect heat exchangers, is applicable to each affected facility with a capacity of 250 mmBTU/hr heat input or less which commenced construction on or after April 9, 1972. The boilers are subject to Sections 4(1)(c), 4(2), and 5(1).

**1. Operating Limitations:**

- a. Total annual natural gas usage rate for Boilers 1, 2, and 3 shall not exceed 420 MMCF/yr.
- b. Total annual used oil usage rate for Boilers 1, 2, and 3 shall not exceed 1,065.67 Million gal  
Compliance with the annual natural gas and used oil usage shall be monitored as rolling 12-month totals. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12-month period.

**2. Emission Limitations:**

- a. Particulate emissions from Boilers 1, 2, and 3 shall not exceed 0.359 lbs/MMBTU (7.89 lbs/hr, each).  
Particulate emission rate in (lbs/MMBTU) = (Natural gas usage x AP-42 emission factor + used oil usage x AP-42 emission factor) / rated capacity in MMBTU/hr.
- b. Visible emissions shall not exceed 20% opacity except the opacity shall not exceed 40% for more than six minutes any 60 minutes during cleaning the firebox or blowing soot and except during building a new fire [401 KAR 59:015, Section 4(2)].
- c. Sulfur dioxide emissions from Boilers 1, 2, and 3 shall not exceed 1.382 lbs/MMBTU (30.4 lbs/hr, each).  
Sulfur dioxide emission rate in (lbs/MMBTU) = (Natural gas usage x AP-42 emission factor + used oil usage x AP-42 emission factor) / rated capacity in MMBTU/hr.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

3. **Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

4. **Specific Monitoring Requirements:**

- a. If Logan Aluminum burns used oil in the boilers, an analysis of the sulfur content of the used oil shall be conducted on a monthly basis.
- b. Logan Aluminum shall monitor visible emissions on weekly basis using EPA Reference Method 9 and maintain records for two years.

5. **Specific Recordkeeping Requirements:**

Retain records of the following:

- Fuel usage for Boilers 1, 2, and 3;
- Pollutant emissions.

6. **Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from all the emission points listed on permit F-97-003 do not exceed 250 tpy. The same list can be found in Section D of this permit.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 46 (4021-5) Propane Flare**

**Description:**

The Propane flare was installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 63:015, Section 3, Flares, is applicable to each affected facility which constructed after April 9, 1972.

1. **Operating Limitations:** NA
2. **Emission Limitations:**  
Visible emissions from the Propane Flare shall not exceed 20% opacity for more than three minutes in any one day [401 KAR 63:015, Section 3].
3. **Testing Requirements:** NA
4. **Specific Monitoring Requirements:**  
Logan Aluminum shall monitor visible emissions on a monthly basis using EPA Reference Method 9 when the flare is in operation. If flare is not in operation, note in log that it is not in use.
5. **Specific Recordkeeping Requirements:** NA
6. **Specific Reporting Requirements:** NA
7. **Specific Control Equipment Conditions:** NA
8. **State-Origin Requirements:** NA
9. **Alternate Operating Scenarios:** NA
10. **Compliance Schedule:** NA
11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 47 (4021-6) Propane Tanks 1, 2, 3, and 4**

**Description:**

- (i) Propane Storage tanks.
- (ii) Construction commenced:  
All four tanks were installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

40 CFR Part 68, Chemical accident prevention provisions, is applicable to the four propane tanks.

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process shall comply with the requirements of this part no later than June 21, 1999.

1. **Operating Limitations:** NA
2. **Emission Limitations:** NA
3. **Testing Requirements:** NA
4. **Specific Monitoring Requirements:**  
Specific monitoring requirements will be provided in the risk management plan as required.
5. **Specific Recordkeeping Requirements:**  
Specific recordkeeping requirements will be provided in the risk management plan as required.
6. **Specific Reporting Requirements:**  
Submit a risk management plan for propane tanks 1, 2, 3, and 4 if the requirements are applicable to the facility.
7. **Specific Control Equipment Conditions:**  
Specific control equipment conditions will be provided in the risk management plan as required.
8. **State-Origin Requirements:** NA
9. **Alternate Operating Scenarios:** NA
10. **Compliance Schedule:** NA
11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 48 (4021-10)**

**Water Services Tanks 4, 6A, 6B, and 8**

**Description:**

- (i) These tanks are located at the water services section of the plant.
- (ii) Construction commenced:
  - Tanks 4 and 6A were installed on June 15, 1981.
  - Tanks 6b and 8 were installed on June 1, 1990.

**APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:485 "Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984, is governed by 40 CFR 60, Subpart Kb. The water services tanks are subject to 40 CFR 60.116b(a) and (b).

- 1. **Operating Limitations:** NA
- 2. **Emission Limitations:** NA
- 3. **Testing Requirements:** NA
- 4. **Specific Monitoring Requirements:** NA
- 5. **Specific Recordkeeping Requirements:**  
Retain records showing the dimensions and capacity of Water Services Tanks WS 4, WS 6A, WS 6B, and WS 8 for the life of the tanks [40 CFR 60.116b(b)].
- 6. **Specific Reporting Requirements:** NA
- 7. **Specific Control Equipment Conditions:** NA
- 8. **State-Origin Requirements:** NA
- 9. **Alternate Operating Scenarios:** NA
- 10. **Compliance Schedule:** NA
- 11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Units: 49 (4021-11)      Cooling Tower 1**

**Description:**

The cooling tower was installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

401 KAR 63:010, Section 3, Fugitive emissions, is applicable to each affected facility constructed after June 29, 1979.

1.    **Operating Limitations:** NA
2.    **Emission Limitations:**  
Logan Aluminum shall take reasonable precautions to prevent fugitive emissions from Cooling Tower 1 [401 KAR 63:010, Section 3].
3.    **Testing Requirements:** NA
4.    **Specific Monitoring Requirements:** NA
5.    **Specific Recordkeeping Requirements:** NA
6.    **Specific Reporting Requirements:** NA
7.    **Specific Control Equipment Conditions:** NA
8.    **State-Origin Requirements:** NA
9.    **Alternate Operating Scenarios:** NA
10.   **Compliance Schedule:** NA
11.   **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 50 (4021-15)**

**Gasoline and Diesel Storage Tanks**

**Description:**

The gasoline tank was installed on June 15, 1990.

The diesel tank was installed on June 15, 1990.

**APPLICABLE REGULATIONS:**

401 KAR 59:050, Section 3(2), New storage vessels for petroleum liquids, is applicable to each affected facility with a storage capacity less than 10,567 gallons, which commenced construction on or after July 24, 1984 and is part of a major source of volatile organic compounds.

1. **Operating Limitations:** NA
2. **Emission Limitations:** NA
3. **Testing Requirements:** NA
4. **Specific Monitoring Requirements:** NA
5. **Specific Recordkeeping Requirements:** NA
6. **Specific Reporting Requirements:** NA
7. **Specific Control Equipment Conditions:**  
The Gasoline Tank shall be equipped with a permanent submerged fill pipe [401 KAR 59:050, Section 3(2)].
8. **State-Origin Requirements:** NA
9. **Alternate Operating Scenarios:** NA
10. **Compliance Schedule:** NA
11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions Unit: 09 (6020-A)****Pretreatment Line and Coating Line 1****Description:**

- (i) This is an aluminum coil coating line, equipped with an afterburner.
- (ii) Construction commenced:  
The pretreatment line, the coating line, and the afterburner were installed on June 15, 1981.

**APPLICABLE REGULATIONS:**

40 CFR 60, Subpart TT, Standards of performance for metal coil surface coating, applies to any affected facility that commences construction, modification, or reconstruction after January 5, 1981.

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

401 KAR 59:010, Section 3(2)

**1. Operating Limitations:**

- a. Total aluminum throughputs for Coating Line 1 shall not exceed 19,000 lbs/hr and 75,440 tons/yr. Compliance with the aluminum throughput limit shall be determined each month by comparing the allowable hourly throughput rate to the total aluminum throughput each month divided by the hours of operation each month. Compliance with the yearly aluminum throughput limit shall be determined by summing the monthly aluminum throughput on a 12-month rolling average.
- b. Total natural gas usage rate for Coating Line 1 shall not exceed 219 MMCF/yr. Compliance with the annual natural gas usage limit shall be determined as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total. To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**2. Emission Limitations:**

- a. VOC emissions from Coating Line 1 shall be controlled to less than 10% of the VOCs applied each month [40 CFR 60.462(a)(3)].  
However, to preclude the applicability of Regulation 401 KAR 51:017, Prevention of Significant Deterioration (PSD) to air quality, the VOC emissions from the pretreatment line and coating line 1 shall be controlled to less than 99% of the VOCs applied each month. To ensure the continuous compliance with the 99% control efficiency the permittee shall monitor the combustion temperature and ensure it remains above 1450 °F and ensure the VOC content of the coat not exceed 6.4 lbs/gallon.
- b. Visible emissions from Coating Line 1 shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- c. Particulate emissions shall not exceed 14.5 lbs/hr and 63.5 tons/yr [401 KAR 59:010, Section 3(2)].  
Particulate emission rate in (lbs/hour) =[ Weight rate of the coat x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]
  - d. See group requirements on page 87.
3. **Testing Requirements:**  
Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.
4. **Specific Monitoring Requirements:**
  - a. Continuously record the combustion temperature of effluent gases from the Coating Line afterburner using electronic process data (VAX) in order to monitor compliance with the VOC emission limitation in 40 CFR 60.462(a)(3).
  - b. Logan shall monitor visible emissions on monthly basis using U.S.EPA Reference Method 9 and maintain records for two years.
5. **Specific Recordkeeping Requirements:**  
Retain records of the following for Coating Line 1:
  - Annual aluminum throughput.
  - Annual natural gas usage.
  - Continuous readings of the afterburner combustion temperature.
  - Monthly coating usage (as applied).
  - VOC content of each coating used on monthly basis.
  - Monthly operating hours.
  - Monthly and rolling 12-month totals of criteria pollutant emissions.
6. **Specific Reporting Requirements:**
  - a. Report excess VOC emissions on a quarterly basis. If no such instances have occurred during a particular quarter, a semiannual report shall be submitted which states this [40 CFR 60.465(c)].
  - b. Report all three hour periods when the afterburner combustion temperature dropped to less than 1,450°F on a quarterly basis. If no such instances have occurred during a particular quarter, a semiannual report shall be submitted which states this [40 CFR 60.465(d)].
  - c. Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the emissions from the original part of the plant do not exceed 250 tpy. The original part of the plant is defined in Section D of this permit.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- d. The permittee shall report all the visible emissions readings that are in excess of the 20% limit specified in this permit on semiannual basis to the Division's Bowling Green Regional office.
- e. Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:**

The bake oven exhaust gas shall be incinerated for a minimum of 0.5 seconds at a temperature of no less than 1,450°F.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 51 (6035-A)      Coating Tanks A, B, and C**

**Description:**

- (i) The three tanks have identical capacity (12,000 gallons).
- (ii) Construction commenced:  
The three tanks were installed on June 9, 1992.

**APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:485 “Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984, is governed by 40 CFR 60, Subpart Kb. The coating tanks are subject to 40 CFR 60.116b(a) and (b).

- 1. **Operating Limitations:** NA
- 2. **Emission Limitations:** NA
- 3. **Testing Requirements:** NA
- 4. **Specific Monitoring Requirements:** NA
- 5. **Specific Recordkeeping Requirements:**  
Retain records showing the dimensions and capacity of coating tanks A, B, and C for the life of the tanks [40 CFR 60.116b(b)].
- 6. **Specific Reporting Requirements:** NA
- 7. **Specific Control Equipment Conditions:** NA
- 8. **State-Origin Requirements:** NA
- 9. **Alternate Operating Scenarios:** NA
- 10. **Compliance Schedule:** NA
- 11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 52 (6035-3) Waste Solvent Tank 3**

**Description:**

Construction commenced:

The waste solvent tank was installed on June 9, 1992.

**APPLICABLE REGULATIONS:**

401 KAR 59:050, Section 3(2), New storage vessels for petroleum liquids, is applicable to each affected facility with a storage capacity less than 10,567 gallons, which commenced construction on or after July 24, 1984 and is part of a major source of volatile organic compounds.

1. **Operating Limitations:** NA
2. **Emission Limitations:** NA
3. **Testing Requirements:** NA
4. **Specific Monitoring Requirements:** NA
5. **Specific Recordkeeping Requirements:** NA
6. **Specific Reporting Requirements:** NA
7. **Specific Control Equipment Conditions:**  
Waste Solvent Tank 3 shall be equipped with a permanent submerged fill pipe [401 KAR 59:050, Section 3(2)].
8. **State-Origin Requirements:** NA
9. **Alternate Operating Scenarios:** NA
10. **Compliance Schedule:** NA
11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 53 (4022-5) Parts washer in CM 3 area**

**Description:**

- (i) This is a parts washer station where parts of different sizes get dipped in a cleaning tank.
- (ii) Construction commenced:  
The parts washer was installed on September 24, 1992.

**APPLICABLE REGULATIONS:**

401 KAR 59:185, Section 4(1),(2) a,b,c, New solvent metal cleaning equipment, applies to each affected facility commenced on or after June 24, 1992, which is part of a major source located in a county or portion of a county designated attainment or marginal non attainment for ozone.

1. **Operating Limitations:**

- (a) Waste solvent shall not be disposed of or transferred to another party so that greater than twenty (20) percent by weight of the waste solvent can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers.
- (b) Degreaser cover shall be closed if not handling parts in the cleaner.
- (c) Cleaned parts shall be drained until dripping ceases (fifteen (15) seconds is usually necessary).

2. **Emission Limitations:** NA

3. **Testing Requirements:** NA

4. **Specific Monitoring Requirements:** NA

5. **Specific Recordkeeping Requirements:** NA

6. **Specific Reporting Requirements:** NA

7. **Specific Control Equipment Conditions:**

- (a) The cleaner shall be equipped with a cover. If the solvent volatility is greater than fifteen (15) mm Hg measured at 100 °F or if the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one (1) hand.
- (b) The cleaner shall be equipped with a drainage facility so that solvent that drains off parts removed from the cleaner will return to the cleaner. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100 °F then the drainage facility may be external if the cabinet determines that an internal type cannot fit into the cleaning system.
- (c) A permanent, conspicuous label, summarizing the operating limitations of this emission unit shall be installed on or near the cleaner.
- (d) If used, the solvent spray shall be a fluid stream (not a fine, atomized or shower type spray) and at a pressure which does not cause excessive splashing.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- (e) If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100 °F or if the solvent is heated above 120 °F, then one (1) of the following control devices shall be used:
  - 1. Freeboard that gives a freeboard ratio greater than or equal to 0.7 .
  - 2. Water cover (solvent shall be insoluble in and heavier than water).
  - 3. Other systems of equivalent control, such as a refrigerated chiller or carbon adsorption.
  
- 8. **State-Origin Requirements:** NA
  
- 9. **Alternate Operating Scenarios:** NA
  
- 10. **Compliance Schedule:** NA
  
- 11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emissions Unit: 44 (1003-1)****Sow dryer****Description:**

- (i) The sow dryer is used to remove the moisture from the pigs and sows prior to melting.
- (ii) The dryer has six burners rated at 5 mmBtu/hr, each.
- (iii) Primary fuel is natural gas with propane as back-up.
- (iv) Construction commenced:  
The sow dryer was installed in September, 1998.

**APPLICABLE REGULATIONS:**

None

**1. Operating Limitations:**

- a. Total natural gas usage rate shall not exceed 257.6 MMCF/yr.  
Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate..
- b. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total. To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**2. Emission Limitations: NA****3. Testing Requirements: NA****4. Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Natural gas usage.
- Hours of operation using propane.

**5. Specific Record keeping Requirements:**

Retain records of the following for the pigs and sow dryer:

- Natural gas usage.
- Hours of operation using propane.

**6. Specific Reporting Requirements:**

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**7. Specific Control Equipment Conditions: NA****8. State-Origin Requirements: NA**

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions unit: 19 (2011-B) Pusher Furnace 3**

**Description:**

- (i) The Pusher Furnace supply ingots to the hot rolling mill at a consistent temperature, and is designed to unload one ingot at a time providing even heat distribution at a consistent rolling temperature.
- (ii) Construction Date: October, 1999.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975

1. **Operating Limitations:**

- a. Natural gas usage rate shall not exceed 420.00 MMCF/yr.  
Compliance with the annual natural gas usage limit shall be monitored as a rolling 12-month total. If a natural gas flow meter malfunctions, then Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- b. Propane shall not be used as a back up fuel for more than 1500 hrs/yr based on a 12 month rolling total. To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

2. **Emission Limitations:**

- a. Visible emissions shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].
- b. Particulate emissions shall not exceed 3 lbs/hr and 13.14 tons/yr.  
[401 KAR 59:010, Section 3(2)]  
Particulate emission rate in (lbs/hour) =[ Monthly natural gas usage rate x Emission factor from Kentucky Emission Inventory System/ (Hours of operation per month)]

3. **Testing Requirements:**

Pursuant to Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

4. **Specific Monitoring Requirements:**

Logan Aluminum shall monitor the following:

- Natural gas usage.
- Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.

5. **Specific Record keeping Requirements:**

Retain records of the following:

- Natural gas usage.
- Monthly visible emission readings.

6. **Specific Reporting Requirements:**

The permittee shall report all the visible emissions readings that are in excess of the 20% limit specified in this permit on semiannual basis to the Division's Bowling Green Regional office.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

7. **Specific Control Equipment Conditions:** NA

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Unit: 54(4021-B)      Boiler 4****Description:**

- (i) Process Description = Boiler #4 will be used to provide plant.
- (ii) Installation Date = 2004
- (iii) Primary fuel = Used oil (Fuel oil #2)
- (iv) Secondary fuel = Natural Gas and Propane
- (v) Rated Capacity = 53 mmBTU/hr
- (vi) Control Equipment = Soot Blower and Baghouse

**APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:015, New indirect heat exchangers, is applicable to each affected facility with a capacity of 250 mmBTU/hr heat input or less which commenced construction on or after April 9, 1972. The boiler is subject to Sections 4(1)(c), 4(2), and 5(1).

**1. Operating Limitations:**

- a. Total annual used oil usage for Boiler #4 shall not exceed 3.75 Million gallons.
- b. Total annual natural gas usage rate for Boiler #4 shall not exceed 455 mmcf/yr. Compliance with the annual used oil and natural usage shall be monitored as rolling 12-month totals. If a natural gas flow meter malfunctions, the Logan Aluminum shall utilize average daily natural gas usage as an acceptable estimate.
- c. Propane shall not be used as a back fuel for more than 1500 hrs/yr based on a 12 month rolling total.  
To show compliance with the propane operating limitation, Logan Aluminum shall keep records of the total hours of operation each month propane is being used and ensure the total hours of operation remain below 1500 hrs during any rolling 12 month period.

**2. Emission Limitations:**

- a. Particulate emissions from Boiler #4 shall not exceed 0.378 lbs/mmBTU (20.03 lbs/hr).  
Particulate emission rate in (lbs/mmBTU) = (used oil usage x AP-42 emission factor + natural gas usage x AP-42 emission factor) / rated capacity in mmBTU/hr.
- b. Visible emissions shall not exceed 20% opacity except the opacity shall not exceed 40% for more than six minutes any 60 minutes during cleaning the firebox or blowing soot and except during building new fire [401 KAR 59:015, Section 4(2)].
- c. Sulfur dioxide emissions from Boiler 4 shall not exceed 39 tons per 12 month rolling average to preclude 401KAR51:017, Prevention of Significant Deterioration.
  - (i) Sulfur dioxide emission rate (tons/yr) = [used oil usage (gallons/yr) x AP-42 emission factor (lbs/1000 gal)] / 2000 (lbs/ton)  
or
  - (ii) Using stack test results.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements:**

Pursuant to Regulation 401KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in Regulation 401 KAR 50:015 shall be conducted as required by the Division.

See Section G

**4. Specific Monitoring Requirements:**

- a. Logan Aluminum shall conduct an analysis of the sulfur content of the used oil on a monthly basis.
- b. Logan Aluminum shall monitor visible emissions on weekly basis using EPA Reference Method 9 and maintain records for two years.
- c. The particulate emissions, Sulfur Dioxide emissions, used oil usage rates shall be monitored to ensure compliance with the emission limitations listed above.

**5. Specific Recordkeeping Requirements:**

Retain records of the following:

- Fuel usage for boiler 4
- Monthly Pollutant emissions.

**6. Specific Reporting Requirements:**

Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the total emissions from the emission points listed in Section D (6) do not exceed 250 tpy.

Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**7. Specific Control Equipment Conditions:**

The baghouse shall be properly maintained, kept in good operating condition, and used in conjunction with the associated process (Boiler 4) in accordance with the manufacturer's specifications. Maintain onsite daily log of the pressure drop across the baghouse, and ensure it remains in the proper operating range.

**8. State Origin Requirements: NA****9. Alternative Operating Scenarios: NA****10. Compliance Schedule: NA****11. Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Unit: 55(1111-1) Induction Furnace****Description:**

- (i) Process Description = This induction furnace is electric and charges only scalper chips which are clean charge material.
- (ii) This induction furnace is a Group 2 furnace [40 CFR Part 63 Subpart RRR – National Emission Standards for Hazardous Air Pollutants Secondary Aluminum Production]
- (iii) Control Equipment = Baghouse with 99% control efficiency.
- (iv) Installation Date: Induction Furnace = 6/15/1981  
Baghouse = 1/09/1991
- (v) Rated Capacity = 8000 lbs/hr

**APPLICABLE REGULATIONS:**

401 KAR 59:010, Section 3(1)(a), New process operations applicable to each emission unit which commenced construction on or after July 2, 1975.

**1. Operating Limitations:**

Total scalper chips charged to the Induction Furnace shall not exceed 8,000 lbs/hr and 31,000 tons/yr. Compliance with the Induction Furnace charge limit shall be monitored each month by comparing the allowable hourly charge rate to the total scalper chips charged each month divided by the hours of operation each month. Compliance with the yearly scalper chips charge limit shall be determined by summing the monthly scalper chips charge on a 12-month rolling average.

**Operating Requirements:**

- a. Charge/feed weight or Production weight:
  - Operate a device that records the weight of each charge. Operate in accordance with operation, maintenance, and monitoring plan.
- b. Labeling:
  - A diagram of the unit(s) subject to 40 CFR 63 Subpart RRR has to be developed and labeled with the required information. The information will be stored in Logan Aluminum database and can be retrieved at any computer in the plant. Each workstation shall have the computer capabilities.
- c. Charge and flux material:
  - Use only clean charge. Use no reactive flux.

**2. Emission Limitations:**

- a. Visible emissions from the Baghouse stack shall not equal or exceed 20% opacity [401 KAR 59:010, Section 3(1)(a)].

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

- b. Particulate Matter emissions from the Baghouse shall not exceed 6.0 lbs/hr and 26.28 tons/yr.  
Particulate emission rate (lbs/hour) = [ Monthly production rate x Emission factor listed in Kentucky EIS/ (Hours of operation per month)] x [ 100 - baghouse control efficiency ]  
Use the monthly production rates of induction charge rate.
    - c. See group requirements on page 87.
3. **Testing Requirements:**  
Testing shall be conducted in accordance with 401 KAR 59:005, Section 2(2), 401 KAR 50:045, Section 1 and 40 CFR 63 Subpart RRR.
4. **Specific Monitoring Requirements:**
  - a. Logan Aluminum shall monitor the following:
    - Monthly aluminum charge to the Induction Furnace.
    - Visible emissions on monthly basis using EPA Reference Method 9 and maintain records for two years.
  - b. Charge and flux materials:
    - Record charge and flux material; certify every 6 months for clean charge and no reactive flux.
5. **Specific Record keeping Requirements:**  
Retention of records of the following:
  - Aluminum charged to the Induction Furnace;
  - Operating hours;
  - Pollutant emissions.
  - Records specified in the Specific Monitoring Requirements.
6. **Specific Reporting Requirements:**
  - a. Maintain onsite reports of monthly and rolling 12-month totals of criteria pollutant emissions to ensure the total emissions from the emission points listed in Section D (6) do not exceed 250 tpy.
  - b. Submit semi-annual certification to Bowling Green Regional office that only clean charge and no reactive flux was used in the furnace.
  - c. Logan Aluminum shall submit the records specified in the Specific Record keeping Requirements annually.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

7. **Specific Control Equipment Conditions:**

The Baghouse shall be properly maintained, kept in good operating condition, and used in conjunction with the associated processes (induction furnace) in accordance with the manufacturer's specifications.

Maintain on site daily log of the pressure drop across the baghouse, and ensure it remains in the proper operating range.

8. **State-Origin Requirements:** NA

9. **Alternate Operating Scenarios:** NA

10. **Compliance Schedule:** NA

11. **Compliance Certification Requirements:**

Logan Aluminum shall submit a Compliance Certification on an annual basis.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**GROUP REQUIREMENTS** There is only one group requirement for this plant: plantwide emissions of aluminum metal and oxide, arsenic, cadmium, chromium metal, cobalt, copper, formaldehyde, hydrogen chloride, and selenium are subject to Regulation 401 KAR 63:022. This section specifies the plantwide emission limits for all the toxics listed above and applies to all the affected facilities listed below.

**LIST OF POINTS:** 1(1001-2), 2(1005-1), 3(1005-4), 4(1005-2), 7(2015-1), 8(2015-2), 17(1005-5), 18(2011-A), 21(3040-1), 22(1001-1), 24(3040-5), 25(1009-1), 26(1009-1), 27(1008-1), 40(1006-1), 42(1006-2)

### **APPLICABLE REGULATION:**

Regulation 401 KAR 63:021, Existing Sources Emitting Toxic Air Pollutants, applies to the toxics pollutants being emitted from each of the affected facilities listed above. Note that the requirements listed here are state origin requirements.

1. **Operating Limitations:**  
See specific operating limitations under individual emission point listing.
2. **Emission Limitations:**  
Pursuant to Regulation 401 KAR 63:021, these hourly allowables for the affected facilities given under the "list of points" shown above, shall not be exceeded based on 24-hr average:

<b>Air Pollutant Toxic</b>	<b>Allowables (lb/hr)</b>
Aluminum metal and oxide	100.2
Arsenic	2.0
Cadmium	5.0
Chromium metal	5.0
Cobalt	1.0
Copper	10.0
Formaldehyde	19.8
Hydrogen chloride	227.5
Selenium	2.0
Phosphoric acid	39.6
Potassium hydroxide	79.3

### **Compliance Demonstration Method:**

Plantwide Hourly Emission Rate =  $\text{Sum of } (P_i \times E_i / H_i)$

Where  $P_i$  = The daily production rate at each emission point.  
 $E_i$  = Emission factor listed in Kentucky emission inventory system for each pollutant under that emission point.  
 $H_i$  = Hours of operation per day for each emission point.  
 $I$  = Corresponds to each individual emission point.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

3. **Testing Requirements:**  
See specific testing requirements for each individual emissions point listing.
4. **Specific Monitoring Requirements:**  
See specific monitoring requirements for each individual emissions point listing.
5. **Specific Recordkeeping Requirements:**  
See specific reporting requirements for each individual emissions point listing.
6. **Specific Reporting Requirements:** NA
7. **Specific Control Equipment Conditions:**  
See specific control equipment conditions for each individual emissions point listing.
8. **State-Origin Requirements:** NA
9. **Alternate Operating Scenarios:** NA
10. **Compliance Schedule:** NA
11. **Compliance Certification Requirements:**  
Logan Aluminum shall submit a Compliance Certification on an annual basis.

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Caustic Tank	401 KAR 63:010
2. Castor Return Sump	401 KAR 63:010
3. Hot Mill Tanks (1-18)	401 KAR 59:010, 401 KAR 63:010
4. CM1 Dowtherm Boiler	NA
5. Cold Mill 1 Tanks (1-10, 13)	401 KAR 59:010, 401 KAR 63:010
6. Cold Mill 1 Tank 11	401 KAR 59:010, 401 KAR 63:010
7. Cold Mill 1 Tank 12	401 KAR 59:010, 401 KAR 63:010
8. Used Oil Tank	401 KAR 59:010, 401 KAR 63:010
9. CM2 Dowtherm Boiler	NA
10. Roll Grinding Coolant Tank	401 KAR 59:010, 401 KAR 63:010
11. CM3 Mixers	NA
12. Cold Mill 3 Tanks (TA03, TA04, TA06-TA10)	401 KAR 59:010, 401 KAR 63:010
13. Space Heaters	401 KAR 59:015
14. Induced Air Flotation Units: IAF 1, IAF 2, IAF 3	401 KAR 63:010
15. Lamella Settler Building	401 KAR 63:010
16. Clarifier Building	401 KAR 63:010
17. Water Services Tanks (WS Tanks 5, 7A, 7B, 7C, 9, 10, 11, 12, 13A, 13B, 13C, 14, 15A, 15B, 15C, 16A, 16B, 17, WS Sump)	401 KAR 59:010, 401 KAR 63:010
18. Cooling Tower 2	401 KAR 59:010, 401 KAR 63:010
19. Cooling Tower 3	401 KAR 59:010, 401 KAR 63:010

**SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)**

	<u>Description</u>	<u>Generally Applicable Regulation</u>
20.	Lime Silo and Baghouse	401 KAR 59:010
21.	Diesel Tank	401 KAR 59:010, 401 KAR 63:010
22.	Parts Washer in Remelt Area	401 KAR 63:010
23.	Parts Washer in Hot Mill Area	401 KAR 63:010
24.	Parts Washer in Maintenance Services	401 KAR 63:010
25.	Parts Washer in Cold Mill Area	401 KAR 63:010
26.	Parts Washer in Finishing Area	401 KAR 63:010
27.	Large Parts Washer in Roll Shop	401 KAR 63:010
28.	Small Parts Washer in Roll Shop	401 KAR 63:010
29.	Tension Leveler	NA
30.	Slitter 1	NA
31.	Slitter 2	NA
32.	Slitter 3	NA
33.	Coating Mix Room 1 Tanks: 1,2,3,4,5,6.	401 KAR 59:010, 401 KAR 63:010
34.	Solvent Tank 1	401 KAR 59:010, 401 KAR 63:010
35.	Solvent Tank 1	401 KAR 59:010, 401 KAR 63:010
36.	Coating Pump Room Fugitives	401 KAR 63:010
37.	Coating Lab Vent Hoods	401 KAR 59:010
38.	Landfill	401 KAR 63:010
39.	Landfarm	401 KAR 63:010
40.	Two coolant tanks, CM1 and CM2 to serve the respective mill.	401 KAR 63:010
41.	Chlorine Building	NA
42.	Wastewater Evaporator	NA

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS**

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Emissions of carbon monoxide, nitrogen oxides, particulate matter, sulfur dioxide, and VOC's as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein. Applicable test methods include the following:
  - a. Opacity shall be determined by Reference Method 9 or an acceptable alternate method [401 KAR 59:010, Section 4(5)].
  - b. Particulate matter shall be determined by Reference Method 5 or Reference Method 17 or an acceptable alternate method [401 KAR 59:010, Section 4(1)].
  - c. Sulfur dioxides shall be determined by Reference Method 6 or an acceptable alternate method [401 KAR 59:015, Section 8(1)(d)].
  - d. VOCs shall be tested by Reference Method 25 or Reference Method 25A [40 CFR 60.466(a)(2)].
  - e. VOC content of coatings shall be determined by Reference Method 24 or data provided by the formulator of the coating (manufacturer's formulation data) may be used to determine the VOC content [40 CFR 60.466(a)(1)].
  - f. Nitrogen oxides shall be determined by Reference Method 7 or an acceptable alternate method [401 KAR 59:015, Section 8(1)(e)].
3. Compliance with annual emissions and processing limitations shall be based on emissions and processing rates for any consecutive 365 days.
4. Propane may be used as an alternate fuel in the case of natural gas curtailment. If a propane flow meter malfunctions, then Logan Aluminum shall utilize an average daily usage as an acceptable estimate.
5. Logan Aluminum shall maintain a three-day rolling average of the SAPU emission limits and shall ensure that the Secondary Aluminum Processing Unit (SAPU) limits as established using the requirements of 40 CFR 63.1513 are not exceeded. If each existing Group 1 furnace is in compliance with the emission limits for a new Group 1 furnace and the existing in-line fluxers are in compliance with the emission limits for a new in-line fluxers, then Logan Aluminum shall be considered to be in compliance and the three-day rolling SAPU calculation shall not be required.

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)**

6. Emissions from the original plant shall not exceed 250 tons per year for any of the criteria pollutants. The original plant consists of the following emission points: **EP.22** Flux box baghouse (including **EP 55**), **EP.01**, Skimming house baghouse, **EP.02**, the east melter (DC1), **EP.04**, the east holding furnace, **EP.03**, the west melter (DC2), **EP.17**, the west holding furnace, **EP.07**, Reversing mill, **EP.08**, Finishing mill, **EP.05**, Scalpers & cyclones, **EP.06**, Seven carbottoms, **EP.12**, Annealing furnaces, **EP.10**, Cold rolling mill (CM1), **EP.14**, Cold rolling mill (CM2), **EP.09**, Pretreatment and coating line 1, **EP. 47**, Propane flare, **EP.15**, Boilers 1,2, and 3.
  
7. Emissions from all the emission points listed on the F-97-003 permit shall not exceed 250 tons per year for any criteria pollutant. Permit F-97-003, had the following emission points: **EP.22**, Flux box baghouse (including **EP55**), **EP.01**, Skimming house baghouse, **EP.02**, the east melter (DC1), **EP.04**, the east holding furnace, **EP.03**, the west melter (DC2), **EP.17**, the west holding furnace, **EP.40**, DC3 melt furnace, **EP. 42**, DC3 hold furnace, **EP.27**, Reservoir furnace, **EP.26**, Swarf furnace (the holding portion), **EP.25**, Swarf furnace/scalper chip conveyer, **EP.18**, Two pusher furnaces, **EP.21**, Cold rolling mill (CM3), **EP.23**, Cold mill mixer, **EP.24**, Cold mill storage tanks, **EP.28**, Water services tanks. For **EP. 07**, the reversing mill, and **EP. 08**, the finishing mill only the incremental increase in emissions from 1993 shall be counted toward the total emissions from Permit F-97-003. The incremental increases were caused by adding the third cold mill CM3.

**SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place as defined in this permit, and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit;
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V )1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality  
Bowling Green Regional Office  
1508 Westen Avenue  
Bowling Green, KY 42104-3356

U.S. EPA Region 4  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth St.  
Atlanta, GA 30303-8960

Division for Air Quality  
Central Files  
803 Schenkel Lane  
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Pursuant to Section VII (3) of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

**SECTION G - GENERAL PROVISIONS****(a) General Compliance Requirements**

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
  - (a) Applicable requirements that are included and specifically identified in the permit and
  - (b) Non-applicable requirements expressly identified in this permit.
- (b) Permit Expiration and Reapplication Requirements
  1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
  2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:02+0 Section 8(2)].
- (c) Permit Revisions
  1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
  2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.
- (d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of Boiler #4 [emission point 54(4021-B)] in accordance with the terms and conditions of this permit.

  1. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
  - a. The date when construction commenced.
  - b. The date of start-up of the affected facilities listed in this permit.
  - c. The date when the maximum production rate specified in the permit application was achieved.
3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (*test*) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. ***These performance tests must also be conducted in accordance with General Provisions G(d)7 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test***
6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.
7. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test. (Use only if testing is required)

**SECTION G - GENERAL PROVISIONS (CONTINUED)**

8. Pursuant to Section VII 1.(2 and 3) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), if a demonstration of compliance, through performance testing was made at a production rate less than the maximum specified in the application form, then the permittee is only authorized to operate at a rate that is not greater than 110% of the rate demonstrated during performance testing. If and when the facility is capable of operation at the rate specified in the application, compliance must be demonstrated at the new production rate if required by the Division.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
  - e. This requirement does not relieve the source of other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

**SECTION G - GENERAL PROVISIONS (CONTINUED)****(g) Risk Management Provisions**

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center  
P.O. Box 3346  
Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

**(h) Ozone depleting substances**

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

**SECTION H - ALTERNATE OPERATING SCENARIOS**

None

**SECTION I - COMPLIANCE SCHEDULE**

None